Atriplex hollowayi

COMMON NAMES
Holloway's crystalwort

BIOSTATUS
Native – Endemic taxon

CURRENT CONSERVATION STATUS
2023 | Threatened – Nationally Critical | Qualifiers: CD, EF, OL
Jump to previous conservation statuses

CATEGORY
Vascular

STRUCTURAL CLASS
Herbs - Dicotyledons other than Composites

FLOWER COLOURS
Cream, Green

DETAILED DESCRIPTION
Annual, succulent, densely branched herb, forming circular 0.8 × 1.2 m mounds on sandy beaches just above mean annual high water tide mark. All exposed parts copiously covered in fine, sugar-like, deciduous, spherical, glistening, ball-like papillae. Branches 10–50 mm long, succulent, creamy yellow, rooting at nodes. Stems pale yellow. Leaves 2–12 × 1–6 mm, grey-green, margins distinctly but irregularly toothed. Plants monoecious. Male flowers axillary, in clusters of 2–4, rarely single; perianth lobes 5, green or pale-cream, 0.8–1 mm, elliptic-oblong; stamens 5, anthers yellow; female flowers minute, 0.8–1.2 mm, shortly stipitate, solitary or paired in leaf-axils. Perianth absent, bracteolea fused for ½ length, lips triangular, obtuse, laciniate, fimbriate to entire; styles 2 not connate; stigmas 2, white, 0.7–1 mm. Fruits 2.8–4.0 × 1.5–2.3, straw-yellow, urceolate, papery. Seed circular, convexm 0.9–2 mm diam., chestnut-brown maturing purple-brown.

Atriplex hollowayi at Waikuku Beach. Photographer: Gillian M. Crowcroft, Licence: All rights reserved.

Atriplex hollowayi adult plant. Photographer: Lisa Forester, Licence: CC BY-SA.

SIMILAR TAXA
Atriplex billardierei (Moq.) Hook.f., which can be distinguished by its smooth margined leaves, fused, paired stigma, larger fruits and seeds. *A. billardierei* appears to have never grown in *A. hollowayi* habitats, and was historically known in New Zealand only from Southland, Stewart Island and Chatham Island sand beaches. Currently it is only known in New Zealand from the Chatham Islands, where it is seasonally abundant.

DISTRIBUTION
Endemic. North Island, formerly recorded from Te Paki south and east to Hicks Bay, including Mayor (Tuhua) Island, with a disjunct southerly gathering made by Thomas Kirk in the 1800s from Lyall Bay, Wellington. Now known naturally only from Waikuku and Whareana Beaches, on the eastern side of Te Paki.

HABITAT
Sandy Beaches, at or just above the high water tide mark. Usually found at or in the vicinity of a fresh water stream draining across a beach

THREATS
At risk from trampling and/or browsing by livestock and palatable to most herbivores. There is some historical evidence suggesting that some of this species decline was caused by botanists collecting whole plants—which to an annual species can be a serious threat. Holloway's crystalwort is also threatened by competition from other introduced strand plants, summer cyclonic storms, human beach users—especially from the ever increasing use of all-terrain vehicles on sand beaches.

GENUS
Atriplex

FAMILY
Amaranthaceae

AUTHORITY
Atriplex hollowayi de Lange et D.A.Norton

SYNONYMS
None

ENDEMIC TAXON
Yes

ENDEMIC GENUS
No

ENDEMIC FAMILY
No

FLOWERING
October - February

FRUITING
December–April

PROPAGATION TECHNIQUE
Easily grown from seed that has first been soaked in fresh water. Can be grown from softwood cuttings early in growing season.

EXTRA INFORMATION
Considerable conservation effort has been undertaken by the Department of Conservation following a recovery plan written specifically for this species in 2001. As a result Holloway's crystalwort has been successfully managed back from the brink of extinction. Plans are underway to reintroduce it to several more southerly locations that fit within its historic range.

PLANT OF THE MONTH
This plant has been featured as a Plant of the Month – see Trilepidea: NZPCN newsletter for February 2004 for the full story.

ETYMOLOGY
atriplex: From an ancient Latin name whose derivation is uncertain, but a possible explanation is the name comes from the Greek a- 'without' and traphein 'nourishment' because many of these species grow in arid desert soils

NVS CODE
ATRHOL

CHROMOSOME NUMBER
2n = 18

PREVIOUS CONSERVATION STATUSES

2017 | Threatened – Nationally Critical | Qualifiers: CD, EF, OL
2012 | Threatened – Nationally Critical | Qualifiers: CD, EF, OL
2009 | Threatened – Nationally Vulnerable | Qualifiers: CD, EF, Inc, OL
2004 | Threatened – Nationally Critical
Jump to current conservation status

REGIONAL CONSERVATION STATUSES

Auckland: 2025 | Regionally Extirpated Help
The regional threat classification system leverages off the national assessments in the NZTCS, providing information relevant for the regional context. Auckland conservation status information is sourced from the "Conservation status of vascular plant species in Tāmaki Makaurau / Auckland" Simpkins E et al. (2025) report.

REFERENCES AND FURTHER READING

de Lange, P.J. ; Norton, D.A.; Crowcroft, G.M. 2000: Taxonomy, ecology, and conservation of *Atriplex billardierei* and *A. hollowayi* sp. nov. (Chenopodiaceae) in Australasia. *New Zealand Journal of Botany 38*: 551–567.
Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 2009: Seed dispersal systems in the New Zealand flora. *Perspectives in Plant Ecology, Evolution and Systematics 11(4)*: 285–309.

ATTRIBUTION

Description based on de Lange et al. (2000).

NZPCN FACT SHEET CITATION

Please cite as: de Lange, P.J. (Year at time of access): Atriplex hollowayi Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. https://www.nzpcn.org.nz/flora/species/atriplex-hollowayi/ (Date website was queried)

MORE INFORMATION

https://www.nzpcn.org.nz/flora/species/atriplex-hollowayi/

PDF DATE

25 May 2026